

ABSTRACT OF THE DISCLOSURE

1 An apparatus is disclosed for endoscopic
application of surgical staples adapted to attach surgical
mesh to body tissue in laparoscopic hernia surgery. The
5 apparatus includes a frame, and a generally elongated
endoscopic section connected to the frame and extending
distally therefrom. A staple storage cartridge is removably
supported on a pivotal support system at the distal end
portion of the endoscopic section with each staple being
10 configured and adapted to attach the mesh to the body
tissue. An elongated pusher system formed of several
assembled components and extending from the frame to the
endoscopic section is provided for individually advancing at
least one staple at a time distally for positioning adjacent
15 the surgical mesh and the body tissue. The pusher system
also includes a trigger system to actuate the pusher. The
trigger system is provided with perceptible tactile sensing
means to indicate when the legs of the staple being advanced
are exposed so as to be visible to the user for positioning
20 and orientation purposes. Anvil means provides for
individually closing each staple to encompass at least a
portion of the surgical mesh and to penetrate the body
tissue in a manner to attach the portion of the mesh to the
body tissue. Projecting distally of the cartridge support
25 system is a pair of legs which are dimensioned and
configured to engage the staple during closure to prevent
unwanted roll or deformation outside of the plane of the
staple.

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